What is claimed is;

1. A magnetic tape cartridge comprising a cartridge casing formed by upper and lower casing halves connected together, and a single reel around which a magnetic tape with a leader pin fixed to the leading end thereof is wound and which is contained in the cartridge casing for rotation, the leader pin being removably held in a tape draw-out opening with its axial direction directed in the vertical direction under urging force of a spring member acting on its upper and lower end portions sideways with the upper and lower end portions received in recesses respectively formed in the upper and lower casing halves, wherein the improvement comprises that

an inclined surface directed obliquely downward is formed at least a part of the side wall of the recess formed in the upper casing half opposed to the direction in which the spring member urges the leader pin.

2. A magnetic tape cartridge as defined in Claim 1 further comprising an inclined surface provided in a side wall of the inlet portion of the recess in the upper casing half.

3. A magnetic tape cartridge comprising a cartridge casing formed by upper and lower casing halves connected together, and a single reel around which a magnetic tape with a leader pin fixed to the leading end thereof is wound and which is contained in the cartridge casing for rotation, the leader pin being removably held in a tape draw-out opening with its axial direction directed in the vertical direction under urging

force of a spring member acting on its upper and lower end portions sideways with the upper and lower end portions received in recesses respectively formed in the upper and lower casing halves, wherein the improvement comprises that

a guide surface inclined downward in the direction of insertion of the leader pin into the recess in the upper casing half is provided on the lower surface of the top wall of the upper casing half at the inlet portion of the recess.

4. A magnetic tape cartridge as defined in Claim 3 in which the guide surface extends from the edge of the tape draw-out opening deep to the interior of the recess.

5. A magnetic tape cartridge as defined in Claim 3 in which the guide surface extends from the edge of the tape draw-out opening to a position near the center of the upper head portion of the leader pin.

6. A magnetic tape cartridge as defined in Claim 3 in which the guide surface extends from the edge of the tape draw-out opening to the upper head portion of the leader pin.

7. A magnetic tape cartridge comprising a cartridge casing formed by upper and lower casing halves connected together, and a single reel around which a magnetic tape with a leader pin fixed to the leading end thereof is wound and which is contained in the cartridge casing for rotation, the leader pin being removably held in a tape draw-out opening with its axial direction directed in the vertical direction under urging force of a spring member acting on its upper and lower end

portions sideways with the upper and lower end portions received in recesses respectively formed in the upper and lower casing halves, wherein the improvement comprises that

the urging force of the spring member applied to the head portion of the leader pin has a component which urges downward the leader pin.

8. A magnetic tape cartridge as defined in Claim 7 in which the head portion of the leader pin is provided with an inclined surface facing obliquely upward so that the force of the spring member acting on the inclined surface generates the component which urges downward the leader pin.

9. A magnetic tape cartridge comprising a cartridge casing formed by upper and lower casing halves connected together, and a single reel around which a magnetic tape with a leader pin fixed to the leading end thereof is wound and which is contained in the cartridge casing for rotation, the leader pin being removably held in a tape draw-out opening with its axial direction directed in the vertical direction under urging force of a spring member acting on its upper and lower end portions sideways with the upper and lower end portions received in recesses respectively formed in the upper and lower casing halves, wherein the improvement comprises that

a recess or a cutaway portion is provided in the head portion of the leader pin and an engagement portion adapted to be engaged with the recess or the cutaway portion is provided on the spring member.

10. A magnetic tape cartridge as defined in Claim 9 in which the recess or the cutaway portion is in the form of a groove formed in the outer peripheral surface of the head portion.

11. A magnetic tape cartridge as defined in Claim 9 in which the recess or the cutaway portion is in the form of a step formed by cutting an upper portion of the outer peripheral surface of the head portion of the leader pin so that an engagement portion of the spring member engaged with the step urges the leader pin also downward.

12. A magnetic tape cartridge as defined in Claim 11 in which the lower surface of the engagement portion of the spring member is inclined in the direction of insertion of the leader pin so that the downward urging force is increased as the leader pin is inserted deep into the tape draw-out opening.

13. A magnetic tape cartridge comprising a cartridge casing formed by upper and lower casing halves connected together, and a single reel around which a magnetic tape with a leader pin fixed to the leading end thereof is wound and which is contained in the cartridge casing for rotation, the leader pin being removably held in a tape draw-out opening with its axial direction directed in the vertical direction under urging force of a spring member acting on its upper and lower end portions sideways with the upper and lower end portions received in recesses respectively formed in the upper and lower

casing halves, wherein the improvement comprises that

at least the lower head portion of the leader pin is formed of a magnetic material and a permanent magnet is embedded in the lower casing half of the cartridge casing in a place with which the lower head portion of the leader pin is brought into contact.

14. A magnetic tape cartridge comprising a cartridge casing formed by upper and lower casing halves connected together, and a single reel around which a magnetic tape with a leader pin fixed to the leading end thereof is wound and which is contained in the cartridge casing for rotation, the leader pin being removably held in a tape draw-out opening with its axial direction directed in the vertical direction under urging force of a spring member acting on its upper and lower end portions sideways with the upper and lower end portions received in recesses respectively formed in the upper and lower casing halves, wherein the improvement comprises that

a ball plunger which presses downward the leader pin is embedded in the upper casing half of the cartridge casing at a portion opposed to the upper head portion of the leader pin.

15. A magnetic tape cartridge comprising a cartridge casing formed by upper and lower casing halves connected together, and a single reel around which a magnetic tape with a leader pin fixed to the leading end thereof is wound and which is contained in the cartridge casing for rotation, the leader

pin being removably held in a tape draw-out opening with its axial direction directed in the vertical direction under urging force of a first urging means acting on its upper and lower end portions sideways with the upper and lower end portions received in recesses respectively formed in the upper and lower casing halves, wherein the improvement comprises that

a second urging means for urging downward the leader pin is provided on the upper casing half of the cartridge casing, and the maximum load point on the leader pin by the first urging means and that by the second urging means are displaced from each other in the direction of insertion of the leader pin.

16. A magnetic tape cartridge comprising a cartridge casing formed by upper and lower casing halves connected together, and a single reel around which a magnetic tape with a leader pin fixed to the leading end thereof is wound and which is contained in the cartridge casing for rotation, the leader pin being removably held in a tape draw-out opening with its axial direction directed in the vertical direction under urging force of a spring member acting on its upper and lower end portions sideways with the upper and lower end portions received in recesses respectively formed in the upper and lower casing halves, and the tape draw-out opening being opened and closed by a slide door wherein the improvement comprises that

the slide door is provided on the back side thereof with a rib having an inclined surface which is brought into abutment against the upper surface of the head portion of the

leader pin and presses downward the leader pin in response to movement of the slide door to the closing position.

17. A magnetic tape cartridge comprising a cartridge casing formed by upper and lower casing halves connected together, and a single reel around which a magnetic tape with a leader pin fixed to the leading end thereof is wound and which is contained in the cartridge casing for rotation, the leader pin being removably held in a tape draw-out opening with its axial direction directed in the vertical direction under urging force of a spring member acting on its upper and lower end portions sideways with the upper and lower end portions received in recesses respectively formed in the upper and lower casing halves, wherein the improvement comprises that

the spring member comprises a base portion which is mounted on the inner surface of the upper or lower casing half of the cartridge casing and an arm portion which extends from the base portion and can be deflected to removably hold the upper or lower end portion of the leader pin, and the edge of the arm portion opposed to the inner surface of the cartridge casing is provided with a cutaway portion for preventing the arm portion from being brought into contact with the inner surface of the cartridge casing.

18. A magnetic tape cartridge as defined in Claim 17 in which the spring member is a single member comprising a base portion and upper and lower arm portions extending from upper and lower portions of the base portion.

19. A magnetic tape cartridge comprising a cartridge casing formed by upper and lower casing halves connected together, and a single reel around which a magnetic tape with a leader pin fixed to the leading end thereof is wound and which is contained in the cartridge casing for rotation, the leader pin being removably held in a tape draw-out opening with its axial direction directed in the vertical direction under urging force of a spring member acting on its upper and lower end portions sideways with the upper and lower end portions received in recesses respectively formed in the upper and lower casing halves, wherein the improvement comprises that

the spring member comprises a base portion which is mounted on the inner surface of the upper or lower casing half of the cartridge casing and an arm portion which extends from the base portion and can be deflected to removably hold the upper or lower end portion of the leader pin, and the inner surface of the cartridge casing opposed to the arm portion is recessed with respect to the inner surface of the cartridge casing opposed to the base portion.

20. A magnetic tape cartridge comprising a cartridge casing formed by upper and lower casing halves connected together, and a single reel around which a magnetic tape with a leader pin fixed to the leading end thereof is wound and which is contained in the cartridge casing for rotation, the leader pin being removably held in a tape draw-out opening with its axial direction directed in the vertical direction under urging

force of a spring member acting on its upper and lower end portions sideways with the upper and lower end portions received in recesses respectively formed in the upper and lower casing halves, wherein the improvement comprises that

the spring member is a single member comprising a base portion and upper and lower arm portions which extend from upper and lower portions of the base portion and can be deflected to removably hold the upper or lower end portion of the leader pin.

21. A magnetic tape cartridge as defined in Claim 20 in which the spring member is provided with upper and lower arm portions for incorporation in addition to the upper and lower arm portions for holding the leader pin, with the upper and lower arm portions for incorporation being symmetrical with the upper and lower arm portions for holding the leader pin so that the spring member is symmetrical about both its horizontal and vertical axes.

22. A magnetic tape cartridge as defined in Claim 21 in which cutaway portions into which the arm portions for incorporation are inserted are formed in the inner surface of the cartridge casing.

23. A magnetic tape cartridge as defined in Claim 20 in which the spring member is further provided with a pressing piece which presses downward the leader pin in the axial direction of the leader pin.

24. A magnetic tape cartridge as defined in Claim 20

in which the spring member is formed by bending opposite end portions of a line spring like a hairpin so that the opposite end portions form the upper and lower arm portions.

25. A magnetic tape cartridge as defined in Claim 24 in which an intermediate portion of the base portion of the spring member is bent to form a mounting portion and the spring member is fixed to the cartridge casing by forming in each of the upper and lower casing halves a spring member mounting groove which opens the mating surface of the casing half, and mating the upper and lower casing halves so that the respective mating surfaces are opposed to each other with a part of the mounting portion of the spring member received in the spring member mounting groove of one of the upper and lower casing half and the other part of the mounting portion received in the spring member mounting groove of the other of the upper and lower casing halves.

26. A magnetic tape cartridge comprising a cartridge casing formed by upper and lower casing halves connected together, and a single reel around which a magnetic tape with a leader pin fixed to the leading end thereof is wound and which is contained in the cartridge casing for rotation, the leader pin being removably held in a tape draw-out opening with its axial direction directed in the vertical direction under urging force of a spring member acting on its upper and lower end portions sideways with the upper and lower end portions received in recesses respectively formed in the upper and lower

casing halves, wherein the improvement comprises that

the spring member comprises a pair of line springs each of which is provided with an arm portion which is deflected to removably hold an end portion of the leader pin, and a cutaway portion for preventing the arm portion from being brought into contact with the inner surface of the cartridge casing when the arm portion is deflected is formed in the arm portion of at least one of the line springs.

27. A magnetic tape cartridge comprising a cartridge casing formed by upper and lower casing halves connected together, and a single reel around which a magnetic tape with a leader pin fixed to the leading end thereof is wound and which is contained in the cartridge casing for rotation, the leader pin being removably held in a tape draw-out opening with its axial direction directed in the vertical direction under urging force of a spring member acting on its upper and lower end portions sideways with the upper and lower end portions received in recesses respectively formed in the upper and lower casing halves, wherein the improvement comprises that

the spring member comprises a pair of line springs each of which comprises a pair of arm portions extending substantially in parallel to each other from a bight portion, one of the arm portions being arranged to removably hold an end portion of the leader pin and the other arm portion being used for incorporating the spring member in the cartridge casing, the inner diameter of the bight portion being

substantially equal to the outer diameter of a support pin and a retainer portion in the form of a projection being formed on the inner side of a portion between the bight portion and the arm portion for incorporating the spring member in the cartridge casing.

28. A magnetic tape cartridge comprising a cartridge casing, and a single reel around which a magnetic tape with a leader pin fixed to the leading end thereof is wound and which is contained in the cartridge casing for rotation, wherein the improvement comprises that

the leader pin comprises a pin body with a central shaft portion, and a clamp member which is formed by synthetic resin, is provided with an axial slit to be C-shaped in cross-section, and is resiliently press-fitted on the central shaft portion through the slit with the leading end portion of the magnetic tape pinched between the inner wall surface of the clamp and the outer surface of the central shaft portion, whereby the leading end portion of the magnetic tape is fixed to the leader pin.

29. A magnetic tape cartridge as defined in Claim 28 in which a chamfered portion is formed along the inner peripheral surface of the end face of the clamp member so that the chamfered portion acts as a guide surface which guide the clamp member when it is press-fitted on the central shaft portion.

30. A magnetic tape cartridge as defined in Claim 28

in which the clamp member is formed of synthetic resin which is 130°C or higher in deflection temperature under load.

31. A magnetic tape cartridge as defined in Claim 28 in which the clamp member is formed of synthetic resin which is 220°C or higher in melting temperature or softening temperature.

32. A magnetic tape cartridge as defined in Claim 28 in which the clamp member is formed of synthetic resin reinforced with fiber.

33. A magnetic tape cartridge as defined in Claim 28 in which a recess is formed on at least one of the C-shaped end faces and a gate mark for injection molding is formed in the recess.

34. A magnetic tape cartridge as defined in Claim 28 in which an end face of the clamp member is obliquely cut on opposite sides of the slit to form an inclined guide surface, and a gate mark is formed on the inclined guide surface.

35. A magnetic tape cartridge as defined in Claim 28 in which the outer surface of the clamp member opposite to the slit is cut partly to form a flat surface and a gate mark for injection molding is formed on the flat surface.

36. A magnetic tape cartridge as defined in Claim 28 in which the outer surface of the clamp member opposite to the slit is cut over the entire length of the clamp member to form a flat surface and a gate mark for injection molding is formed on the flat surface.

37. A magnetic tape cartridge as defined in Claim 28 in which the inner surface of the clamp member is thinned over the entire periphery at least at a part adjacent to one C-shaped end face to form a recess on the inner surface and the gate mark for injection molding is formed on the recess.

38. A magnetic tape cartridge as defined in Claim 28 in which the inner surface of the clamp member is partly thinned to form a recess extending in the axial direction of the clamp member from at least one C-shaped end face and the gate mark for injection molding is formed on the recess.